

In the Drawings

Please enter corrected Figure 2 and new Figures 9 and 10.

Remarks

Claims 1 - 45 are pending in the application. Claims 1 - 40 stand rejected. By the foregoing Amendment, Claims 1 - 45 are amended and new Claims 46 – 67 are submitted. Entry of the Amendment and favorable consideration thereof is requested.

Election/Restrictions

Applicants hereby affirm the election of Claims 1 - 40 for prosecution thereof.

Drawings

The drawings are objected to under 37 CFR 1.83(a). Corrected Figure 2 is submitted herewith. New Figures 9 and 10 are submitted herewith.

With regard to Claim 2, corrected Figure 2 shows a cable **210** having at least one channel comprising two electrical conductors **235**. Such a cable having at least one channel comprising two electrical conductors finds support in original Figure 2 as filed and the at page 8 original paragraph **[0027]** of the Detailed Description of the Drawings as filed.

With regard to Claim 5, new Figure 9 shows a cable **210** having four channels comprising eight electrical conductors **235 a - h**. New Figure 9 finds support at page 8 original paragraph **[0027]** of the Detailed Description of the Drawings as filed.

With regard to Claim 1, new Figure 10 shows a light source **255** mounted within the camera control unit **240**. New Figure 10 finds support in Claim 14 as filed.

With regard to Claims 20 - 22, 35 and 37, corrected Figure 2 shows an endoscope **260** and an intermediate coupling/cable **280** connecting the camera head **205** and the endoscope **260**. Such endoscope and intermediate coupling/cable finds support in Claims 20 - 22, 35 and 37 in the application as filed.

With regard to Claims 25 - 27, the Applicants are at a loss as to the Examiner's reference thereto. Claims 25 - 27 make no reference to an endoscope. Applicants request further clarification of this point.

Specification

The disclosure was objected to for certain informalities.

The Applicants draw the Examiner's attention to the fact that, in the application as filed, some paragraph numbering was mistaken. In particular, paragraph numbers 0001 - 0014 are correct. However, at page 5 of the Specification, after paragraph 0014, the paragraph numbering began again at number 0010 and continued sequentially therefrom. Thus, a substitute Specification is submitted herewith to correct the paragraph numbering.

The Specification has been amended at original paragraph 0026 (new paragraph 0033) to comport with Claims 1, 13, 20, 21 and 22, and Claims 26, 35, 36 and 37 as filed. MPEP 608.01(I).

The Specification has been amended at original paragraph 0022 (new paragraph 0029) to comport with Claims 24, 25, 38 and 39 as filed. MPEP 608.01(I).

The Specification has been amended at original paragraph 0021 (new paragraph 0028) for purposes of clarity.

Claim Rejections- 35 USC § 102

Claims 1 - 4, 6 - 8, 12 - 22, 26 - 29, 31, 34, 35 - 37 and 40 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Monroe et al. (U.S. Pat. 5,311,859).

Monroe et al. teaches generally that an add-on video camera arrangement permits onscreen viewing of a target within an enclosed structure. (*Abstract*).

Claim 1 has been amended to include the recitation:

a light source mounted within the camera control unit.

Independent Claim 26 has been amended to include the recitation:

a light source mounted within a camera control unit.

Monroe et al. teaches an add-on camera assembly 20 including a flexible tubular umbilical 30 which carries signal and power conductors. A wiring bundle within a power and light supply unit 36 carries video signals which are then supplied to an associated video monitor 38. (*Col. 3, l. 54 - Col. 4, l.12*). As seen in Figure 1 the light source of Monroe et al. is clearly not mounted in a camera control unit.

Thus, Monroe et al. fails to teach or disclose, either explicitly or implicitly, a light source mounted within a camera control unit. Applicants therefore submit that Claims 1 and 26, as amended, are clearly not anticipated by Monroe et al. Notification of that fact is respectfully requested. Applicants also submit that Claims 2 - 4, 6 - 8, 12 - 22, and Claims 27 - 29, 31, 34, 35 - 37, which depend variously from Claims 1 and 26, are therefore also not anticipated by Monroe et al. for at least the same reasons set forth with respect to Claims 1 and 26. Notification of that fact is respectfully requested.

Claims 1 - 8, 12, 13, 15, 19 - 21, 26 - 31, 34 - 36 and 40 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Ono et al. (U.S. Pat. 5,976,070).

Ono et al. teaches generally that "a composite signal cable 1 for a video endoscope 2 ... is inserted through an inserting portion 3 of the video endoscope 2." (*Col. 3, l. 16 - 17*). Furthermore, "[a] video endoscope system 9 mainly includes the video endoscope 2, a camera control unit 4 (CCU) and a television monitor." (*Col. 3, l. 19 - 21*).

In Ono et al. a "universal cord 54 is provided in its proximal end portion with a light guide connector 55 which is detachably connected to the light source device 60. An electric cable 56 extends from the light guide connector 55. The electric cable 56 is provided in its proximal end portion with a camera control unit connector 57, which is detachably connected to the camera control unit 70." (*Col. 8, l. 38 - 44*). The light source device of Ono et al. is clearly seen in Figure 6 to be external to a camera control unit.

Thus, Ono et al. fails to teach or disclose, either explicitly or implicitly, a light source mounted within a camera control unit. Applicants therefore submit that Claims 1 and 26, as amended, are clearly not anticipated by Ono et al. Notification of that fact is respectfully requested. Applicants also submit that Claims 2 - 8, 12, 13, 15 and 19 - 21, and Claims 27 - 31 and 34 - 36, which depend variously from Claims 1 and 26, are therefore also not anticipated by Ono et al. for at least the same reasons set forth with respect to Claims 1 and 26. Notification of that fact is respectfully requested.

Claim Rejections- 35 USC § 103

Claims 9, 10, 11, which depend from Claim 1, and Claims 32 and 33 which depend from Claim 26, stand rejected under 35 U.S.C. § 103(a) as being unpatentable

over Monroe et al in view of McKenna et al. (U.S. Pat. 6,261,226) and separately over Ono et al. in view of McKenna et al.

Claim 33 has been cancelled.

McKenna et al. teaches that "[a] light source 105 is located adjacent to the proximal ends of fiber optic bundles 95" (*Col. 13, l. 53 – 52*); and further that "fiber optic filaments may be used to deliver light from light source 260 to the region being viewed." (*Col. 19, l. 49 – 50*). Furthermore, the light source of McKenna et al. is clearly seen in Figs. 1 and 13 as not mounted within a camera control unit. As noted above, neither Monroe et al nor Ono et al teach or disclose a light source mounted within a camera control unit.

Thus, the Applicants submit that neither Monroe et al. and Ono et al. nor McKenna et al., either alone or in combination, teach or even suggest a light source mounted within a camera control unit. Therefore, all elements of Claims 1 and 26 are not found in the cited art.

The Applicants therefore submit that Claims 1 and 26 and all Claims that depend therefrom are patentable over Monroe et al in view of McKenna et al. and separately over Ono et al. in view of McKenna et al. Notification of that fact is respectfully requested.

Claims 5, 24, 25, which depend from Claim 1, and Claims 38 and 39, which depend from Claim 26, stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Monroe et al in view of "Interface Circuits for TIA/EIA-644 (LVDS) Design Notes."

The "Interface Circuits for TIA/EIA-644 (LVDS) Design Notes" teaches "that transmission media may be printed circuit board (PCB) traces, backplanes, or cables." (*pg. 1, first paragraph under "General Information."*), and that drivers "are commonly

implemented as current-mode devices." (*pg. 2, first paragraph under "Electrical Characteristics, Driver"*). The "Interface Circuits for TIA/EIA-644 (LVDS) Design Notes" fail to teach or disclose a light source mounted within a camera control unit.

Thus, the Applicants submit that neither Monroe et al. nor, the "Interface Circuits for TIA/EIA-644 (LVDS) Design Notes," either alone or in combination, teach or even suggest a light source mounted within a camera control unit. Therefore, all elements of Claims 1 and 26 are not found in the cited art.

Therefore, the Applicants submit that Claims 5, 24, 25, 38 and 39 are patentable over Monroe et al in view of LVDS Design Notes. Notification of that fact is respectfully requested.

Claim 23, which depends from Claim 1, stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Monroe et al in view of Hattori (US 4,356,534).

Hattori teaches a light supply device for an endoscope wherein "a connector of a universal cord of the endoscope is detachably inserted into the socket of a light supply device. The light supply device includes a lamp for emitting a predetermined amount of light into a light guide of the endoscope. A light control means is provided for decreasing an amount of light which leaks through the socket of the light supply device when the connector is removed from the socket of the light supply device." (*Col. 1, l. 31 - 40*). Hattori fails to teach a light source mounted within a camera control unit.

Thus, the Applicants submit that neither Monroe et al. nor Hattori, either alone or in combination, teach or even suggest a light source mounted within a camera control unit. Therefore, all elements of Claim 1 are not found in the cited art.


Therefore, the Applicants submit that Claim 23 is patentable over Monroe et al in view of Hattori. Notification of that fact is respectfully requested.

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Response to Official Action

Double Patenting

The Examiner advises that should Claim 1 be found allowable, Claim 40 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. Claim 40 has been cancelled.

Respectfully submitted,



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